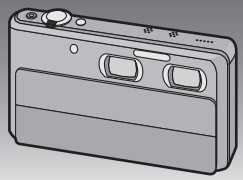
Panasonic

Basic Owner's Manual
Digital Camera

Model No. DMC-3D1

LUMIX



Before connecting, operating or adjusting this product, please read the instructions completely.

More detailed instructions on the operation of this camera are contained in "Owner's Manual for advanced features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

For USA and Puerto Rico assistance, please call: 1-800-211-PANA(7262) or, contact us via the web at: http://www.panasonic.com/contactinfo

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VQT3U37

Dear Customer,

Thank you for choosing Panasonic!

You have purchased one of the most sophisticated and reliable products on the market today. Used properly, we're sure it will bring you and your family years of enjoyment. Please take time to fill in the information on the below. The serial number is on the tag located on the underside of your camera. Be sure to **retain this manual** as your convenient camera information source.

Date of Purchase	Dealer Phone No.
Dealer Purchased From	Model No.
Dealer Address	Serial No.

Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in this Owner's Manual.

Carefully observe copyright laws.

- Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

A lithium ion battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

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Information for Your Safety

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- **DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.**
- **USE ONLY THE RECOMMENDED ACCESSORIES.**
- **DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

■ **Product identification marking**

Product	Location
Digital Camera	Bottom
Battery charger	Bottom

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FCC Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, follow the attached installation instructions and use only shielded interface cables with ferrite core when connecting to computer or peripheral devices.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Declaration of Conformity

Trade Name:	Panasonic
Model No.:	DMC-3D1
Responsible party:	Panasonic Corporation of North America One Panasonic Way, Secaucus, NJ 07094
Support Contact:	Panasonic Consumer Electronics Company 1-800-211-PANA (7262)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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Panasonic
DMC-3D1

■ About the battery pack

CAUTION
Battery pack (Lithium ion battery pack)
- Use the specified unit to recharge the battery pack.
- Do not use the battery pack with equipment other than the specified unit.
- Do not get dirt, sand, liquids, or other foreign matter on the terminals.
- Do not touch the plug terminals (+ and −) with metal objects.
- Do not disassemble, remodel, heat or throw into fire.

If any electrolyte should come into contact with your hands or clothes, wash it off thoroughly with water.

If any electrolyte should come into contact with your eyes, never rub the eyes. Rinse eyes thoroughly with water, and then consult a doctor.

CAUTION
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- Do not heat or expose to flame.
- Do not leave the battery(ies) in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

Warning
Risk of fire, explosion and burns. Do not disassemble, heat above 60 °C (140 °F) or incinerate.

■ About the battery charger

CAUTION!
DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.

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Battery charger

This battery charger operates on AC between 110 V and 240 V.

But

- In the U.S.A. and Canada, the battery charger must be connected to a 120 V AC power supply only.
- When connecting to an AC supply outside of the U.S.A. or Canada, use a plug adaptor to suit the AC outlet configuration.

■ Cautions for Use

- Always use a genuine Panasonic AV cable (DMW-AVC1; optional).
- Always use a genuine Panasonic HDMI mini cable (RP-CDHM15, RP-CDHM30; optional).
  Part numbers: RP-CDHM15 (1.5 m) (5 feet), RP-CDHM30 (3.0 m) (10 feet)
- Do not use any other USB connection cables except the supplied one.

Keep this unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).

- If you use this unit on top of or near a TV, the pictures and/or sound on this unit may be disrupted by electromagnetic wave radiation.
- Do not use this unit near cell phones because doing so may result in noise adversely affecting the pictures and/or sound.
- Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by microprocessors may adversely affect this unit, disturbing the pictures and/or sound.
- If this unit is adversely affected by electromagnetic equipment and stops functioning properly, turn this unit off and remove the battery. Then reinsert the battery and turn this unit on.

Do not use this unit near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and/or sound may be adversely affected.

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-If you see this symbol-

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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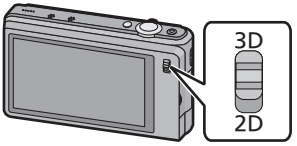
Main features of the camera

This unit has two lenses built-in so that you can enjoy making a variety of different recordings. You can switch between the following functions using the 3D/2D switch.



When the 3D/2D switch is set to [3D]

- You can easily record 3D pictures and 3D motion pictures.
- When you connect this unit to a television that supports 3D, you can view the 3D images you have recorded using the unit. (On the unit, 3D images are played back in 2D.)

When the 3D/2D switch is set to [2D]

- You can record conventional 2D pictures and 2D motion pictures.
- In Wide & Zoom Dual-Shooting, you can simultaneously record images with differing angles of view.
- The camera records a picture with the right lens during recording of a motion picture with the left lens.

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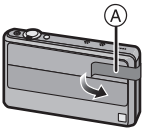
Care of the camera

Remove the lens cover seal Ⓐ before use.
Do not subject to strong vibration, shock, or pressure.



- The lens, LCD monitor, or external case may be damaged if used in following conditions. It may also malfunction or image may not be recorded.
  – Drop or hit the camera.
  – Sit down with the camera in your trousers pocket or forcefully insert it into a full or tight bag, etc.
  – Attach any items such as accessories to the strap attached to the camera.
  – Press hard on the lens or the LCD monitor.

This camera is not dust/drip/water proof.
Avoid using the camera at location with a lot of dust, water, sand, etc.

- Liquids, sand and other foreign material may get into the space around the lens, buttons, etc. Be particularly careful since it may not just cause malfunctions, but it may become unrepairable.
  – Places with a lot of sand or dust.
  – Places where water can come into contact with this unit such as when using it on a rainy day or on a beach.

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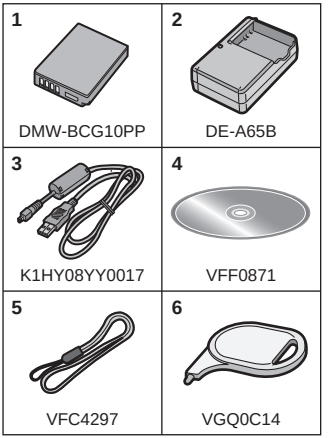
Standard Accessories

Check that all the accessories are supplied before using the camera.
Product numbers correct as of October 2011. These may be subject to change.

1 Battery Pack
(Indicated as **battery pack** or **battery** in the text)
Charge the battery before use.
2 Battery Charger
(Indicated as **battery charger** or **charger** in the text)
3 USB Connection Cable
4 CD-ROM
- Software:
  Use it to install the software to your PC.
- Owner's Manual

5 Hand Strap
6 Stylus Pen



- SD Memory Card, SDHC Memory Card and SDXC Memory Card are indicated as **card** in the text.
- **The card is optional.**
  You can record or play back pictures on the built-in memory when you are not using a card.
- For information about optional accessories, refer to the "Digital Camera Accessory System".
- If any accessories are lost, customers should contact Panasonic's parts department at 1-800-833-9626 for further information about obtaining replacement parts.

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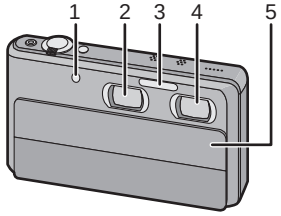
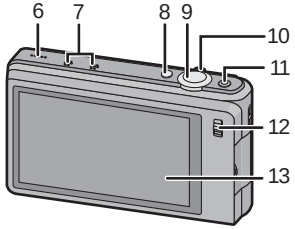
Names of the Components

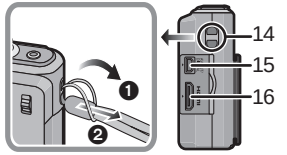
1 Self-timer indicator
AF Assist Lamp
2 Right lens
3 Flash
4 Left lens
5 Lens cover



6 Speaker
• Do not cover the speaker with your fingers.
7 Microphone
8 Power button
9 Shutter button
10 Zoom lever
11 Motion picture button
12 3D/2D switch
13 Touch panel/LCD monitor

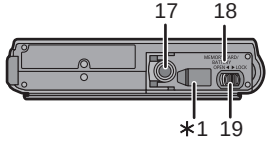


14 Strap eyelet
• Be sure to attach the strap when using the camera to ensure that you will not drop it.
15 [AV OUT/DIGITAL] socket
16 [HDMI] socket



17 Tripod receptacle
18 Card/Battery door
19 Release lever

∗1 This unit does not support an AC adaptor or DC coupler.



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How to Use the Touch Panel

This touch panel is a type that detects pressure.

Touch the screen To touch and release the touch panel.	**Drag** A movement without releasing the touch panel.
Use this to perform tasks such as selecting icons or images displayed on the touch panel. • It may not operate properly when multiple icons are touched simultaneously, so try to touch the center of the icon.	This is used when performing tasks such as moving to the next image by dragging horizontally, or changing the range of the displayed image. This can also be used to perform tasks such as switching the screen by operating the slide bar.

Note

- If you use a commercially available liquid crystal protection sheet, please follow the instructions that accompany the sheet. (Some liquid crystal protection sheets may impair visibility or operability.)
- **Apply a little extra pressure** when touching if you have a commercially available protection sheet affixed or if you feel it is not responding well.
- Touch panel will not operate properly when the hand holding this unit is pressing on the touch panel.
- Do not press using anything with a sharp tip or anything hard, except for the supplied stylus pen.
- Do not operate with your fingernails.
- Do not scratch or press the LCD monitor too hard.
- Wipe the LCD monitor with dry soft cloth when it gets dirty with finger prints and others.

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Charging the Battery

■ **About batteries that you can use with this unit**

The battery that can be used with this unit is DMW-BCG10PP.

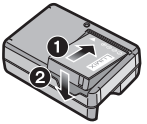
It has been found that counterfeit battery packs which look very similar to the genuine product are made available to purchase in some markets. Some of these battery packs are not adequately protected with internal protection to meet the requirements of appropriate safety standards. There is a possibility that these battery packs may lead to fire or explosion. Please be advised that we are not liable for any accident or failure occurring as a result of use of a counterfeit battery pack. To ensure that safe products are used we would recommend that a genuine Panasonic battery pack is used.

- **Use the dedicated charger and battery.**

Charging

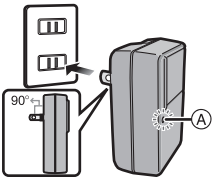
- **The battery is not charged when the camera is shipped. Charge the battery before use.**
- Charge the battery with the charger indoors.

1 **Attach the battery paying attention to the direction of the battery.**



2 **Connect the charger to the electrical outlet.**

- The [CHARGE] indicator Ⓐ lights up and charging begins.



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■ About the [CHARGE] indicator

The [CHARGE] indicator turns on:
The [CHARGE] indicator is turned on during charging.

The [CHARGE] indicator turns off:
The [CHARGE] indicator will turn off once the charging has completed without any problem. (Disconnect the charger from the electrical socket and detach the battery after charging is completed.)

- **When the [CHARGE] indicator flashes**
  - The battery temperature is too high or too low. It is recommended to charge the battery again in an ambient temperature of between 10 °C and 30 °C (50 °F and 86 °F).
  - The terminals of the charger or the battery are dirty. In this case, wipe them with a dry cloth.

■ Charging time

Charging time	Approx. 130 min

Approximate operating time and number of recordable pictures

	When recording in 3D	When recording in 2D
Number of recordable pictures	Approx. 200 pictures	Approx. 200 pictures
Recording time	Approx. 100 min	Approx. 100 min

Recording conditions by CIPA standard
- CIPA is an abbreviation of [Camera & Imaging Products Association].
- Temperature: 23 °C (73.4 °F)/Humidity: 50%RH when LCD monitor is on.
- Using a Panasonic SD Memory Card (32 MB).
- Using the supplied battery.
- Starting recording 30 seconds after the camera is turned on. (When the Optical Image Stabilizer function is set to [On].)
- **Recording once every 30 seconds** with full flash every second recording.
- Changing the zoom magnification from Tele to Wide or vice versa in every recording.
- Turning the camera off every 10 recordings and leaving it until the temperature of the battery decreases.

Playback time	Approx. 160 min

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About the Built-in Memory/the Card

Built-in Memory

- **Memory size: Approx. 70 MB**
- The access time for the built-in memory may be longer than the access time for a card.

Card

The following cards which conform to the SD video standard can be used with this unit.
(These cards are indicated as **card** in the text.)

	Remarks
SD Memory Card (8 MB to 2 GB)	• **Use a card with SD Speed Class✳ with "Class 4" or higher when recording motion pictures.** • SDHC Memory Card can be used with SDHC Memory Card or SDXC Memory Card compatible equipment. • SDXC Memory Card can only be used with SDXC Memory Card compatible equipment. • Check that the PC and other equipment are compatible when using the SDXC Memory Cards. **http://panasonic.net/avc/sdcard/information/SDXC.html** • Only the cards with capacity listed left can be used.
SDHC Memory Card (4 GB to 32 GB)	
SDXC Memory Card (48 GB, 64 GB)	

✳ SD Speed Class is the speed standard regarding continuous writing. Check via the label on the card, etc.

e.g.:

- Please confirm the latest information on the following website.
  http://panasonic.jp/support/global/cs/dsc/
  (This Site is English only.)

Note

- Keep the Memory Card out of reach of children to prevent swallowing.

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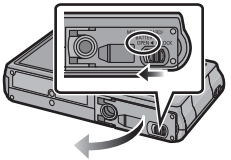
Inserting and Removing the Card (optional)/the Battery

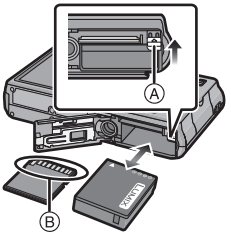
- Check that this unit is turned off.
- We recommend using a Panasonic card.

1 **Slide the release lever in the direction of the arrow and open the card/battery door.**



- **Always use genuine Panasonic batteries (DMW-BCG10PP).**
- **If you use other batteries, we cannot guarantee the quality of this product.**

2 **Battery: Being careful about the battery orientation, insert all the way until you hear a locking sound and then check that it is locked by lever Ⓐ.**
Pull the lever Ⓐ in the direction of the arrow to remove the battery.

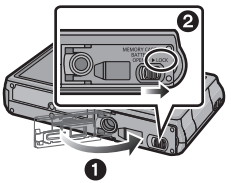


Card: Push it securely all the way until you hear a "click" while being careful about the direction in which you insert it.
To remove the card, push the card until it clicks, then pull the card out upright.

Ⓑ: Do not touch the connection terminals of the card.

3 **❶:Close the card/battery door.**

❷:Slide the release lever in the direction of the arrow.



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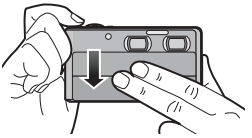
Setting Date/Time (Clock Set)

• The clock is not set when the camera is shipped.

1 **Turn the camera on.**

- Lower the lens cover.
- When turning off the power, raise the lens cover.



2 **Touch [Clock Set].**

3 **Touch the items you wish to set (Year/Month/Day/Hours/Minutes), and set using [▲]/[▼].**

- Touch [↩] to cancel the date and time settings without setting a date and time.

4 **Touch [Set] to set.**

5 **Touch [Set] in the confirmation screen.**

Changing the Clock Setting

Select [Clock Set] in the [Rec] or [Setup] menu.

• It can be changed in steps **3** and **4** to set the clock.

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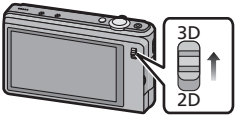
Taking 3D pictures

With the two lenses built into this unit, you can record 3D pictures.

1 **Set the 3D/2D switch to [3D].**

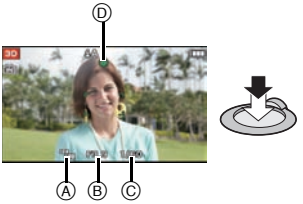


2 **Aim the AF area at the point you want to focus on.**

3 **Press the shutter button halfway to focus.**

Ⓐ ISO sensitivity
Ⓑ Aperture value
Ⓒ Shutter speed

- **Be careful not to get too close to the subject.**
- **Make sure that your fingers are not over either of the lenses.**
- The focus indication Ⓓ (green) lights when the subject is focused.



4 **Press the shutter button fully (push it in further), and take the picture.**

- To achieve good a 3D effect, we recommend that you record with the distance to the subject set as follows. Outside this range, left-right distortion increases and may prevent the 3D effect being achieved at the edges of the image.
  – Approx. 90 cm (2.96 feet) (Wide)/Approx. 3.4 m (11.2 feet) (Tele) to ∞

Pay attention to the following points when 3D picture recording.
- Where possible, record with the unit in a horizontal state.
- Be careful not to get too close to the subject.
- Be careful not to shake the camera while in a vehicle or walking.

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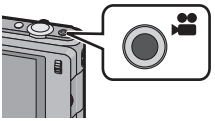
Recording 3D motion pictures

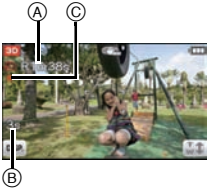
1 Set the 3D/2D switch to [3D].

2 Start recording by pressing the motion picture button.



Ⓐ Available recording time
Ⓑ Elapsed recording time

- Release the motion picture button right after you press it.
- The recording state indicator (red) Ⓒ will flash while recording motion pictures.
- **Be careful not to get too close to the subject.**
- **Make sure that your fingers are not over either of the lenses.**



3 Stop the recording by pressing the motion picture button again.

- To achieve good a 3D effect, we recommend that you record with the distance to the subject set as follows. Outside this range, left-right distortion increases and may prevent the 3D effect being achieved at the edges of the image.
  – Approx. 90 cm (2.96 feet) (Wide)/Approx. 3.4 m (11.2 feet) (Tele) to ∞

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Pay attention to the following points when 3D video recording.

- Where possible, record with the unit in a horizontal state.
- Be careful not to get too close to the subject.
- When moving the unit as you record, move it slowly.
- Try to hold the unit as steady as possible when recording while riding in a vehicle or walking.

Note

- The maximum continuous recording time for 3D motion pictures is 29 minutes 59 seconds. If you are recording motion pictures in an environment where the ambient temperature is high or recording motion pictures continuously, [ ] may be displayed and the recording may stop.

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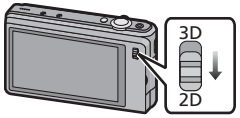
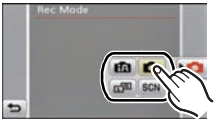
Selecting a 2D Recording Mode

1 **Set the 3D/2D switch to [2D].**



2 **In Recording Mode, touch [ ].**

3 **Touch the Recording Mode icon.**



■ **List of [Rec] Modes**

	Normal Picture Mode
The subjects are recorded using your own settings.	
iA	**Intelligent Auto Mode**
The subjects are recorded using settings automatically selected by the camera.	
	Wide & Zoom Dual-Shooting
Images with different angles of view are simultaneously recorded.	
SCN	**Scene Mode**
This allows you to take pictures that match the scene being recorded.	

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Applicable modes: iA

Taking Pictures Using the Automatic Function (Intelligent Auto Mode)

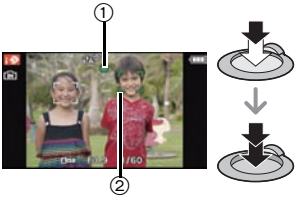
The camera will set the most appropriate settings to match the subject and the recording conditions so we recommend this mode for beginners or those who want to leave the settings to the camera and take pictures easily.

1 **Set the 3D/2D switch to [2D].**

2 **In Recording Mode, touch [ ].**

3 **Touch [iA].**

4 **Press the shutter button halfway to focus and then press it fully to take the picture.**



① Focus indication

- The AF area ② is displayed around the subject's face by the Face Detection function. In other cases, it is displayed at the point on the subject which is in focus.

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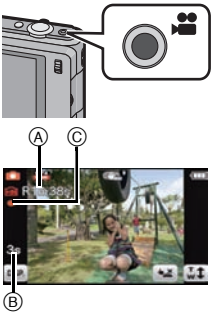
Applicable modes: iA SCN

Recording 2D Motion Pictures

1 **Set the 3D/2D switch to [2D].**

2 **Start recording by pressing the motion picture button.**

Ⓐ Available recording time
Ⓑ Elapsed recording time
- A 2D image is recorded using the left lens.
- You can record motion pictures fitting each Recording Mode.
- Release the motion picture button right after you press it.
- The recording state indicator (red) Ⓒ will flash while recording motion pictures.



3 **Stop the recording by pressing the motion picture button again.**

Note
- Maximum time to record motion pictures continuously with [FSH] in [AVCHD] is 29 minutes 59 seconds.
- Maximum time to record motion pictures continuously with [MP4] is 29 minutes 59 seconds or up to 4 GB.
  The maximum available recording time continuously is displayed on the screen.
- When the image quality setting is [FSH], the maximum continuous recording time for motion pictures is 29 minutes 59 seconds. If you are recording motion pictures in an environment where the ambient temperature is high or recording motion pictures continuously, [⚠] may be displayed and the recording may stop.

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Playing Back Pictures ([Normal Play])

To view 3D images, a television that supports 3D is required (This unit will play back in 2D).
For details, read the PDF.

1 **In Recording Mode, touch [▶].**

- The display switches to normal playback.

2 **Drag the screen horizontally.**

- After selecting the motion picture, touch [▶] to start playback.

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Deleting Pictures

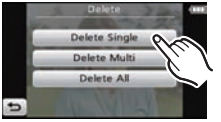
Once deleted, pictures cannot be recovered.

- Pictures on the built-in memory or the card, that are being played back will be deleted.

1 **In Playback Mode, select the picture to delete and touch [🗑].**

2 **Touch [Delete Single].**

- Confirmation screen is displayed. Picture is deleted by selecting [Yes].



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Setting the Menu

Example: In the [Rec] menu, change [AF Mode] from [■] (1-area-focusing) to [👤] (Face Detection)

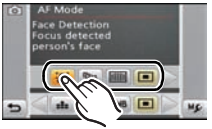
1 **Touch [MENU].**

2 **Touch the menu icon.**

3 **Touch the menu item.**

4 **Touch the Settings.**

- Depending on the menu item, its setting may not appear or it may be displayed in a different way.



■ Close the menu

Touch [↩] several times or press the shutter button halfway.

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About the supplied software

The supplied CD-ROM includes the following software.
Install the software on to your computer before use.

- **PHOTOfunSTUDIO 7.0 HD Edition (Windows XP/Vista/7)**
  You can load 2D and 3D pictures, 3D motion pictures, and motion pictures recorded in [AVCHD] or [MP4] format on to your computer, and categorize and organize the loaded pictures by recording date, type of digital camera equipment, etc. Motion pictures recorded with [AVCHD] can be used to create normal, standard quality DVD videos.
  You can also write pictures to DVD, combine multiple pictures to create a single panoramic picture, or create a slide show by adding your favorite audio and/or music. These pictures can then be saved onto a DVD.

- **QuickTime (Windows XP/Vista/7)**
  This software is required for creating panorama pictures and for replay in "PHOTOfunSTUDIO 7.0 HD Edition".
  You can also play back motion pictures (.MP4/.MOV extension) recorded on a digital camera.

- **LoiLoScope 30 day full trial version (Windows XP/Vista/7)**
  LoiLoScope is a video editing software where that draws out the full power of your PC. Creating videos is as easy as organizing cards on top of a desk. Use your music, picture and video files to create videos to share with your friends and family by burning it to a DVD, uploading it to websites, or simply share your videos with your friends via e-mail.
  – This will only install a shortcut to the trial version download site.

For more information on how to use LoiLoScope, read the LoiLoScope manual available for download at the link below.
Manual URL: http://loilo.tv/product/20

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Installing supplied software

• Before inserting the CD-ROM, close all running applications.

1 Check the environment of your PC.

• **Operating environment of "PHOTOfunSTUDIO 7.0 HD Edition"**
– OS:
Windows® XP (32bit) SP2/SP3,
Windows Vista® (32bit) or SP1/SP2,
Windows® 7 (32bit/64bit) or SP1
– CPU:
Pentium® III 500 MHz or higher (Windows® XP),
Pentium® III 800 MHz or higher (Windows Vista®),
Pentium® III 1 GHz or higher (Windows® 7)
– Display:
1024×768 pixels or more (1920×1080 pixels or more recommended)
– RAM:
512 MB or more (Windows® XP/Windows Vista®),
1 GB or more (Windows® 7 32bit),
2 GB or more (Windows® 7 64bit)
– Free hard disk space:
450 MB or more for installing software
• Refer to the operating instructions of "PHOTOfunSTUDIO 7.0 HD Edition" (PDF) for further operating environment.

2 Insert the CD-ROM with the supplied software.

• When you insert the supplied CD-ROM, the install menu will start.

3 Click on the [Applications] on the install menu.

4 Click on the [Recommended Installation].

• Proceed with installation according to messages appearing on the screen.

Note

• The software compatible with your PC will be installed.
• "PHOTOfunSTUDIO 7.0 HD Edition" is not compatible with Mac.

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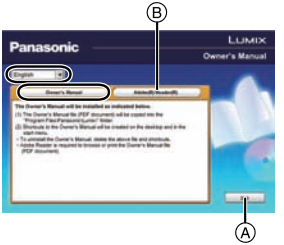
Reading the Owner's Manual (PDF format)

More detailed instructions on the operation of this camera are contained in "Owner's Manual for advanced features (PDF format)" in the supplied CD-ROM. Install it on your PC to read it.

■ **For Windows**

1. **Turn the PC on and insert the CD-ROM containing the Owner's Manual (supplied).**
2. **Click the [Owner's Manual].**
3. **Select the desired language and then click [Owner's Manual] to install.**

   Ⓐ To return to the install menu.
4. **Double click the "Owner's Manual" shortcut icon on the desktop.**



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■ When the Owner's Manual (PDF format) will not open

You will need Adobe Acrobat Reader 5.0 or later or Adobe Reader 7.0 or later to browse or print the Owner's Manual (PDF format).
Insert the CD-ROM containing the Owner's Manual (supplied), click Ⓑ and then follow the messages on the screen to install.
(Compatible OS: Windows XP SP3/Windows Vista SP2/Windows 7)

- You can download and install a version of Adobe Reader that you can use with your OS from the following Web Site.
  http://get.adobe.com/reader/otherversions

■ To uninstall the Owner's Manual (PDF format)

Delete the PDF file from the "Program Files\Panasonic\Lumix\" folder.

■ For Mac

1 **Turn the PC on and insert the CD-ROM containing the Owner's Manual (supplied).**

2 **Open the "Manual" folder in the CD-ROM and then copy the PDF file with the desired language inside the folder.**

3 **Double click the PDF file to open it.**

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Specifications

Digital Camera:
Information for your safety

Power Source:	DC 3.6 V
Power Consumption:	1.6 W (When recording in 3D) 1.6 W (When recording in 2D) 1.1 W (When playing back)

Camera effective pixels	12,100,000 pixels	
Image sensor	1/2.3″ MOS sensor×2, total pixel number 12,800,000 pixels, Primary color filter	
Lens	Optical 4×zoom lens×2, f=4.5 mm to 18 mm (35 mm film camera equivalent: 25 mm to 100 mm)/ F3.9 (Wide) to F5.7 (Tele)	
Image stabilizer	Optical method	
Digital zoom	Max. 4×	
Extended optical zoom	Max. 7.8× (When set to 3,000,000 pixels [3M] or less)	
Focus range	Normal	50 cm (1.64 feet) (Wide)/ 1 m (3.28 feet) (Tele) to ∞
	Macro/ Intelligent auto/ Motion Picture	5 cm (0.17 feet) (Wide)/ 1 m (3.28 feet) (Tele) to ∞
	Scene Mode	There may be differences in the above settings.
Shutter system	Electronic shutter+Mechanical shutter	

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Burst recording	Burst speed (Number of recordable pictures) Approx. 2 pictures/second (Max. 100 pictures) Approx. 4 pictures/second (Max. 100 pictures) Approx. 8 pictures/second (Max. 12 pictures)
Minimum Illumination	Approx. 14 lx (when i-low light is used, the shutter speed is 1/30th of a second)
Shutter speed	8 seconds to 1/1300th of a second [Starry Sky] Mode: 15 seconds, 30 seconds
Exposure (AE)	Program AE Exposure compensation (1/3 EV Step, −2 EV to +2 EV)
Metering mode	Multiple
LCD monitor	3.5″ TFT LCD (16:9) (Approx. 460,000 dots) (field of view ratio about 100%) Touch panel
Flash range	Approx. 30 cm (0.99 feet) to 3.5 m (11.5 feet) (Wide, [ISO AUTO] is set)
Microphone	Stereo
Speaker	Monaural
Recording media	Built-in Memory (Approx. 70 MB)/SD Memory Card/ SDHC Memory Card/SDXC Memory Card
Recording file format	
Still Picture	JPEG (based on “Design rule for Camera File system”, based on “Exif 2.3” standard)/DPOF corresponding/ MPO
Motion pictures	AVCHD/MP4/Proprietary 3D recording format (Side-by-side)
Audio compression format	3D motion pictures: Dolby Digital (2 ch) AVCHD: Dolby Digital (2 ch) MP4: AAC (2 ch)

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Interface	
Digital	“USB 2.0” (High Speed)
Analog video **Audio**	NTSC Audio line output (monaural)
Terminal	
[AV OUT/ DIGITAL]	Dedicated jack (8 pin)
[HDMI]	MiniHDMI TypeC
Dimensions (excluding the projecting parts)	Approx. 108.0 mm (W)×58.5 mm (H)×24.1 mm (D) [4.25″(W)×2.30″(H)×0.95″(D)]
Mass (weight)	Approx. 193 g/0.43 lb (with card and battery) Approx. 171 g/0.38 lb (excluding card and battery)
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Operating humidity	10%RH to 80%RH
Language select	[ENGLISH]/[ESPAÑOL]

Battery Charger (Panasonic DE-A65B):
Information for your safety

Input:	110 V to 240 V ~ 50/60 Hz, 0.2 A
Output:	4.2 V ⎓ 0.65 A

Equipment mobility:
Movable

Battery Pack (lithium-ion) (Panasonic DMW-BCG10PP):
Information for your safety

Voltage/capacity:	3.6 V/895 mAh

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A C-program for MT19937, with initialization improved 2002/1/26.
Coded by Takuji Nishimura and Makoto Matsumoto.

Before using, initialize the state by using init_genrand(seed) or init_by_array(init_key, key_length).

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Any feedback is very welcome.
http://www.math.sci.hiroshima-u.ac.jp/~m-mat/MT/emt.html
email: m-mat @ math.sci.hiroshima-u.ac.jp (remove space)

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Digital Camera Accessory System

Description	Accessory#
Battery Pack	DMW-BCG10
AV Cable	DMW-AVC1
HDMI mini Cable	RP-CDHM15, RP-CDHM30
Class 10 64 GB SDXC Memory Card	RP-SDU64GE1K
Class 10 32 GB SDHC Memory Card	RP-SDU32GU1K
Class 10 16 GB SDHC Memory Card	RP-SDU16GU1K
Class 10 8 GB SDHC Memory Card	RP-SDU08GU1K
Class 10 4 GB SDHC Memory Card	RP-SDU04GU1K
Class 4 16 GB SDHC Memory Card	RP-SDL16GU1K
Class 4 8 GB SDHC Memory Card	RP-SDL08GU1K
Class 4 4 GB SDHC Memory Card	RP-SDL04GU1K
Class 4 2 GB SD Memory Card	RP-SDL02GU1K

Product numbers correct as of October 2011. These may be subject to change.

- NOTE: Accessories and/or model numbers may vary between countries. Consult your local dealer.

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Digital Camera Accessory Order Form

Please photocopy this form when placing an order.

1. Digital Camera Model # _____
2. Items Ordered

Accessory #	Description	Price Each	Quantity	Total Price
			Subtotal	
			Your State & Local Sales Tax	
			Shipping & Handling	6.95
			Total Enclosed	

3. Method of payment (check one)

☐ Check of Money Order enclosed (NO C.O.D.SHIPMENTS)

☐ VISA Credit Card # _____

☐ MasterCard Expiration Date _____

☐ Discover Customer Signature _____

Make Check or Money Order to: PANASONIC ACCESSORIES

(Please do not send cash)

4. Shipping information (UPS delivery requires complete street address)

Ship To:
Mr.
Mrs.
Ms. _____
First Last

Phone#:
Day ( ) _____

_____
Street Address

Night ( ) _____

_____ _____ _____
City State Zip

TO OBTAIN ANY OF OUR DIGITAL CAMERA ACCESSORIES YOU CAN DO ANY OF THE FOLLOWING:
VISIT YOUR LOCAL PANASONIC DEALER
OR
CALL PANASONIC'S ACCESSORY ORDER LINE AT 1-800-332-5368
[6 AM-6 PM M-F, PACIFIC TIME]
OR
MAIL THIS ORDER TO: PANASONIC SERVICE AND TECHNOLOGY COMPANY
ACCESSORY ORDER OFFICE
20421 84th Avenue South Kent, WA. 98032

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Limited Warranty (ONLY FOR U.S.A. AND PUERTO RICO)

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way, Secaucus, New Jersey 07094

Panasonic Digital Still Camera Products Limited Warranty

Limited Warranty Coverage (For USA and Puerto Rico Only)
If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company (referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by the warrantor.

Product or Part Name	Parts	Labor
Digital Still Camera	1 year	1 year
CCD	6 months	90 days
SD Memory Cards, Rechargeable Battery Pack (defective exchange)	90 days	Not Applicable

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. This Limited Warranty excludes both parts and labor for non-rechargeable batteries, antennas, and cosmetic parts (cabinet). This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is".

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Mail-In Service

For assistance in the U.S.A. and Puerto Rico in obtaining repairs, please ship the product prepaid to:

Panasonic Exchange Center
4900 George McVay Drive
Suite B
McAllen, TX 78503
panacare@us.panasonic.com

When shipping the unit, carefully pack, include all accessories, and send it prepaid, adequately insured and preferably in the original carton.
When shipping Lithium Ion batteries please visit our Web Site at www.panasonic.com/BatteryHandling as Panasonic is committed to providing the most up to date information. Include a letter detailing the complaint, a return address and provide a daytime phone number where you can be reached. A valid registered receipt is required under the Limited Warranty.

IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD, THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

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(As examples, this excludes damages for lost time, travel to and from the servicer, loss of or damage to media or images, data or other memory or recorded content. The items listed are not exclusive, but for illustration only.)

ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

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Customer Services Directory (United States and Puerto Rico)

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Service Center; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:
http://www.panasonic.com/help
or, contact us via the web at:
http://www.panasonic.com/contactinfo
You may also contact us directly at:
1-800-211-PANA (7262)
Monday-Friday 9am-9pm, Saturday-Sunday 10am-7pm EST

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Accessory Purchases (United States and Puerto Rico)

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:
http://www.pstc.panasonic.com
Or, send your request by E-mail to:
npcparts@us.panasonic.com
You may also contact us directly at:
1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only)
(Monday-Friday 9am-9pm EST)
Panasonic Service and Technology Company
20421 84th Avenue South, Kent, WA 98032
(We accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY: 1-866-605-1277

As of December 2010

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AVCHD™ HDMI VIERA Link™ DOLBY DIGITAL STEREO CREATOR QuickTime

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